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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/670,471 | 09/26/2003 | William H. Redfield | 234724US51 | 7412 |

22850 7590 09/07/2006

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ALEXANDRIA, VA 22314

EXAMINER

SHAPIRO, JEFFERY A

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

3653

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/670,471

Applicant(s)

REDFIELD, WILLIAM H.

Examiner

Jeffrey A. Shapiro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 12-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>9/26/03</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cost (US 6,564,965 B2) in view of Smith (US 4,257,436), and further in view of Shattuck et al (US 6,561,945 B2).

As described in **Claims 1, 4, 5, 6 and 10**, Cost discloses a planetary gear assembly in figure 3, a gear cage having plates (18 and 24, for example) with stacked pairs of planetary gears (16 and 22) sandwiched between a bottom plate (not shown) and plate (18), with housing (24) and motor (14), said planetary gears driving dispensing mechanism (28, 30, 33, 34 and 36), said coin being moved by pusher pin (36) towards dispensing slot (6). Cost also discloses a sun gear (15), as called for in **Claims 5 and 11**. With regards to **Claim 9**, Note that outer housing (12) can be construed to be a hoop ring, that surrounds inner housing (24).

Cost does not expressly disclose, but Smith discloses use of a shutter door (9) which has a t-shaped projection that engages the coin.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have used Smith's shutter door to remove coins from Cost's tubes.

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The suggestion/motivation would have been to prevent coin jams and a rim-lock condition. See Smith at col. 1, lines 29-38.

With respect to **Claims 2, 3, 7 and 8**, Cost does not expressly disclose, but Shattuck discloses a planetary gear assembly using plural pins (32) as axles for planetary gears (12). Shattuck at figure 3, illustrates said pins having an indentation. With regards to flaring, note that the angular walls of the indentation can be construed as flaring. See also rivets (26), which can be construed as flared at either end.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have used staked pins with indentations and flaired ends, as described in **Claims 2, 3, 7 and 8**.

The suggestion/motivation would have been because such staking and riveting are functionally equivalent methods of fastening axles and plates of a planetary gear assembly together, as evidenced by Shattuck's teaching. Note also that Cost at col. 4, lines 1-3 states that "alternative planetary and other gear arrangements can be used..."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey A. Shapiro whose telephone number is (571)272-6943. The examiner can normally be reached on Monday-Friday, 9:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick H. Mackey can be reached on (571)272-6916. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



JAS

September 3, 2006



**PATRICK MACKEY
PRIMARY EXAMINER**